In re Application of:

Harper et al.

Application No.: 09/938,842

Filed: August 24, 2001

Page 14

Attorney Docket No.: SCRIP1300-3

PATENT

## II. REMARKS

Upon entry of the present amendment, claims 1 to 11, 29 to 59, 66 to 70, and 74, 75, and 80 to 86 will be pending.

Applicants and Applicants' representative gratefully acknowledge the helpful comments and clarification of the Restriction Requirement by the Examiner in a telephone conference held May 5, 2003.

## A. Regarding the Amendments

Pursuant to the Restriction Requirement, claims 12 to 28, 60 to 65, 71 to 73, and 76 to 79 are cancelled herein without disclaimer, and without prejudice to Applicants' pursuing prosecution of subject matter encompassed within one or more of the cancelled claims in an application claiming the benefit of priority of the subject application.

Claim 59 has been amended to correct the dependency from claim 58. The amendment is supported by a review of the SEQ ID NOS: recited in claims 58 and 59, wherein the SEQ ID NOS: recited in claim 59 are further limiting of those in claim 59. More specifically, the SEQ ID NOS: recited in claim 59 encompass only the regulatory element sequences recited in claim 58 (see, also, Table 2). Claim 59 also has been amended to delete a duplication of a comma. As such, it is submitted that the amendments merely address an informality and correct typographical errors, and do not add new matter.

New claims 80 to 86 have been added. New claims 80 to 86 are supported, for example, by paragraphs 9 and 10 (pages 3-4), paragraph 49 (page 28), and paragraph 51 (page 29.) It is noted that new claims 80 to 86 are based on the requirement to elect a single nucleotide sequence for examination, including fragments of the sequence. As discussed below, Applicants elect SEQ ID NO:1034 for examination. Applicants point out that SEQ ID NO:3729 (see new claim 81) comprises

In re Application of:

Harper et al.

Application No.: 09/938,842

Filed: August 24, 2001

Page 15

PATENT Attorney Docket No.: SCRIP1300-3

the upstream genomic nucleotide sequence of SEQ ID NO:1034, including the stress responsive regulatory element (see Table 2; see, also SEQ ID NOS:1034 and 3729, attached hereto as Exhibits A and B, respectively, and GenBank Acc. No. AY056214, attached as Exhibit C.; wherein nucleotides 1 to 102 of GenBank Acc. No. AY056214 correspond to nucleotides 1576 to 1677 of SEQ ID NO:3729, and nucleotides 103 to 1172 correspond to nucleotides 1 to 1071 of SEQ ID NO:1034). As such, SEQ ID NO:3729 comprises the stress responsive regulatory element of elected SEQ ID NO:1034.

## B. Regarding the Restriction Requirement

Applicants elect the claims of Group I, claims 1 to 11, 29 to 59, 66 to 70, 74 and 75 for examination.

It also is requested that ONE nucleotide sequence be selected for examination, and noted that the selected sequence can include, e.g., subsequences. Applicants select SEQ ID NO:1034. As discussed above, it is noted that SEQ ID NO:3729 comprises the upstream regulatory sequence for elected SEQ ID NO:1034. As such, it is respectfully requested that SEQ ID NO:3729 also be examined with elected SEQ ID NO:1034.

It also is stated in the Office Action that claims, including the claims elected herein, recite different combinations of nucleotide sequences, and requested that ONE combination of sequences be selected. Applicants select the combination of sequences that are regulated in response to Cold Stress, as set forth, e.g., in claim 2. It is noted that elected SEQ ID NO:1034 is included among the polynucleotides recited in claim 2. As discussed with the Examiner, it is further noted that claim 1 (and claim 2) can be practiced using only SEQ ID NO:1034, as well as using combinations of sequences including SEQ ID NO:1034.

In re Application of:

Harper et al.

Application No.: 09/938,842

Filed: August 24, 2001

Page 16

No additional fee beyond that enclosed herewith for the one month extension of time is deemed necessary in connection with the filing of this Response. However, if any fee is required, the Commissioner is authorized to charge any fee (or credit any overpayment) to Deposit Acct. No. 50-1355.

The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to this application.

Respectfully submitted,

**PATENT** 

Attorney Docket No.: SCRIP1300-3

Dated: May 14, 2003

Lisa A. Haile, J.D., Ph.D.

Reg. No. 38,347

Telephone: (858) 677-1456 Facsimile: (858) 677-1465

USPTO CUSTOMER NUMBER 28213
GRAY CARY WARE & FREIDENRICH LLP
4365 Executive Drive, Suite 1100
San Diego, CA 92121-2133

Encl.: Exhibits A, B and C

<210> 1034

<211> 1071

<212> DNA

<213> Arabidopsis thaliana

<400> 1034

60 atggcgacaa ttcagaagct tgaagaagtt gcaggcaaag atcaaactct aagagccgtt gatctaacca tcatcaacgg cgtcagaaac gtcgaaactt caagaccttt ccaagtaaat 120 cccacagtga gtctcgagcc caaggcggag ccggtgatgc cgtcgttttc aatgtcttta 180 gctccaccgt cttcgacagg accaccattg aagagagctt cgactaaaga ccgtcacacg 240 aaqqttqaaq qaaqaqggaq aaggatacgg atgcctgcca cgtgtgcggc taggattttt 300 360 caattaactc gagagttagg tcacaaatcc gacggcgaaa cgattcggtg gttgttggag 420 aacqctqaqc cqqcqattat agccgccacg ggtacgggaa cggttcccgc catcgccatg tcggttaacg gaaccttaaa aatcccgacg acgacgaacg ctgattctga tatgggtgaa 480 540 aatctgatga agaagaaacg taaacgacct tctaacagtg agtatataga cataagcgac 600 qccqtttcaq cttcctccqg tttagctcca attgccacga cgacaacgat ccaacctccg 660 caagetetgg catcatecae tgtggeteag caacttetge egcaaggaat gtateegatg 720 tgggctattc catcaaacgc aatgattccg acggtcggag ctttcttctt gattccacaa 780 ategetggte egtegaatea geeteagtta ttagetttte eegeegeege tgettegeeg 840 togtottacg togocgotgt toaacaggot tocacgatgg ctagaccacc tootttacaa 900 qttqttccaa qcaqcqqctt tqtatccqtt tcagacqtta qcqqttcgaa tttatcaaga 960 gcgacgtcgg ttatggctcc gagctcaagc tcaggcgtaa caaccggtag ttcatcgtca attgcaacaa caacgacgca cacgctgaga gacttctccc tagagatata cgagaaacaa 1020 1071 gagetteace agtteatgag caccacaaca geaeggteat egaaceactg a

<210> 3729

<211> 1677

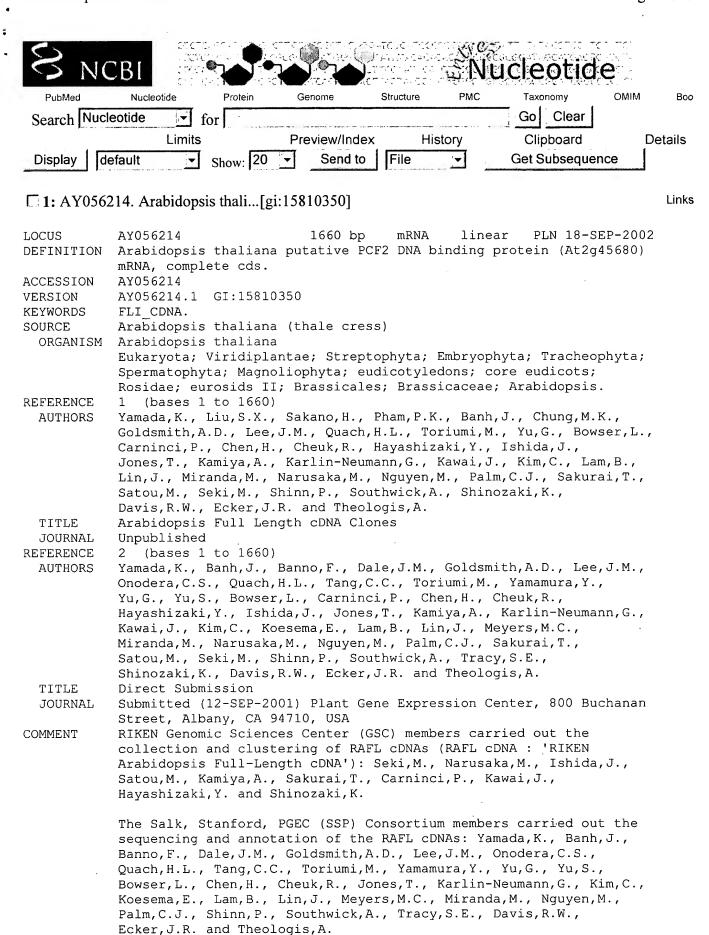
<212> DNA

<213> Arabidopsis thaliana

<400> 3729

ggttaagcgt tttacttatg gtttatatgc aacggaagaa tattgccatt gttggaatgc 60 tttttcagat catcaaaggc tcctacagat ttcttaggga atggtttcag gcttttgtta 120 gaaattgtgt ttattgcaac aggtagagaa cataaccata gacagatgta tctgaagaga 180 taagcttctc tatgtctaaa gaaatggacc gatacgaata aaacaagcat cattaaagat 240 taaatggttt gtaagaaata ctacacttat ttatgtgaaa ttgtgtggtt agtgaaaagt 300 360 aaaaacatcg gaatccaaaa cctcaaattt accaatcagc ccaaattatt gatgctggcg 420 taatgaatgg tatgctgatg gtaggcaaaa gttggtggct gcgaaaatta caacattatc 480 cctctgtggt ggacccgaat ctgtaatcgg aaaaggtgga acccacttgg tttaactttt aagcctaaaa ggttactacc ggtttgaccg gtttataatt tggtgtttaa ttctaatccc 540 ggatccgttt gtttgttaat ctcaaggcca cgttatcgcc aatattttga tttttgagtg 600 ggtagggaat ggtggggtcg aatagttggg cctagccctc aacaatgtgt ggaactgaag 660 720 agagtagggt ccagctcagg cccacattca cattttcgtt ttgtagcctt tcttttctgg 780 tgcttacggt ccctctttct ggtcggtcgt atgtacaagt agcatagcta gtggttcaaa 840 cccgaaacaa gtaccaacga atcaaaataa gtttgaatcg gttacatcta gttaccgtcg aacttacaat catttcgatt actttgatct gatttctagt tcggtttgta tgtttaatat 900 960 ccggattgta caagtacaca agtacataag tatgcgtata tgtatgtgac cggtttaatc 1020 aaaggacgga cgataggagg attttggaat cctggaaaga ggattattcc atagacacta attagetttt tggtggegea geettgtgae etacattaat ggggteeaae eecaagtatg 1080 1140 ggcttacagc tttttccata aaattaaagt aaatcttttt ttgcctaacc aataaaaatt. attgaaaatc tttccaacca tagaaaagtt aaatttgatc agcgatggaa atttttgtac 1200 aaagctaggt atttcatttg ggagtgtact agtaactagt aagtactaac cagaatgagt 1260 1320 ttctgatttt ggattttgaa gcttttctta ggttaaaaaa caagtatatt actaaacaat 1380 aaaagaaaaa cattttgtga aaagagaaat aaagtttact ggaccccatt gtacagatgg 1440 tcccataata atactgatag aagatagagc aatggaaagt gatttgttca cgtggtacaa tcggaatggt tctttaaagc tcatcgaaca catcaggacc gttgattttt cccgcatcaa 1500 1560 aaagcgttga atactattct cacttgtttt cctgctccta tatatatatc ctgacgagtc

acatttagta	atctccttgg	acgtgtaacg	ccgttaaaac	gattctttcc	cattgtatcc	1620
gcttttaaca	actctcgtcg	tcatctccac	cgtccgtttt	ctctcagcta	tatttta	1677



```
this work. Shinozaki, K. (RIKEN GSC) and Theologis, A. (SSP/PGEC)
            contributed equally to this work as PIs.
            Annotation is based on the January 2002 version of the Arabidopsis
            genome submitted to GenBank.
FEATURES
                     Location/Qualifiers
                     1..1660
     source
                     /organism="Arabidopsis thaliana"
                     /mol type="mRNA"
                     /db_xref="taxon:3702"
                     /chromosome="2"
                     /clone="RAFL07-08-P04 (R10678)"
                     /note="This clone is in a modified pBluescript vector
                     (FLC-1) as a BamHI/XhoI insert.
                     ecotype: Columbia"
                     1..1660
     gene
                     /gene="At2g45680"
                     1..102
     5'UTR
                     /gene="At2g45680"
                     103..1173
     CDS
                     /gene="At2g45680"
                     /codon start=1
                     /evidence=experimental
                     /product="putative PCF2 DNA binding protein"
                     /protein id="AAL07063.1"
                     /db xref="GI:15810351"
                     /translation="MATIQKLEEVAGKDQTLRAVDLTIINGVRNVETSRPFQVNPTVS
                     LEPKAEPVMPSFSMSLAPPSSTGPPLKRASTKDRHTKVEGRGRRIRMPATCAARIFQL
                     TRELGHKSDGETIRWLLENAEPAIIAATGTGTVPAIAMSVNGTLKIPTTTNADSDMGE
                     NLMKKKRKRPSNSEYIDISDAVSASSGLAPIATTTTIQPPQALASSTVAQQLLPQGMY
                     PMWAIPSNAMIPTVGAFFLIPQIAGPSNQPQLLAFPAAAASPSSYVAAVQQASTMARP
                     PPLOVVPSSGFVSVSDVSGSNLSRATSVMAPSSSSGVTTGSSSSIATTTTHTLRDFSL
                     EIYEKQELHQFMSTTTARSSNH"
   3'UTR
                     1174..1660
                     /gene="At2g45680"
BASE COUNT
                         400 c
                                  385 g
                                           411 t
ORIGIN
        1 cttggacgtg taacgccgtt aaaacgattc tttcccattg tatccgcttt taacaactct
       61 cgtcgtcatc tccaccgtcc gttttctctc agctatattt taatggcgac aattcagaag
      121 cttgaagaag ttgcaggcaa agatcaaact ctaagagccg ttgatctaac catcatcaac
     181 ggcgtcagaa acgtcgaaac ttcaagacct ttccaagtaa atcccacagt gagtctcgag
      241 cccaaggcgg agccggtgat gccgtcgttt tcaatgtctt tagctccacc gtcttcgaca
      301 ggaccaccat tgaagagagc ttcgactaaa gaccgtcaca cgaaggttga aggaagaggg
      361 agaaggatac ggatgcctgc cacgtgtgcg gctaggattt ttcaattaac tcgagagtta
      421 gqtcacaaat ccqacggcga aacgattcgg tggttgttgg agaacgctga gccggcgatt
      481 atagccgcca cgggtacggg aacggttccc gccatcgcca tgtcggttaa cggaacctta
      541 aaaatcccga cgacgacgaa cgctgattct gatatgggtg aaaatctgat gaagaagaaa
      601 cgtaaacgac cttctaacag tgagtatata gacataagcg acgccgtttc agcttcctcc
      661 gqtttagctc caattgccac gacgacaacg atccaacctc cgcaagctct ggcatcatcc
      721 actgtggctc agcaacttct gccgcaagga atgtatccga tgtgggctat tccatcaaac
      781 gcaatgattc cgacggtcgg agctttcttc ttgattccac aaatcgctgg tccgtcgaat
      841 cagecteagt tattagettt teeegeegee getgettege egtegtetta egtegeeget
      901 gttcaacagg cttccacgat ggctagacca cctcctttac aagttgttcc aagcagcggc
      961 tttgtatccg tttcagacgt tagcggttcg aatttatcaa gagcgacgtc ggttatggct
     1021 ccgagctcaa gctcaggcgt aacaaccggt agttcatcgt caattgcaac aacaacgacg
     1081 cacacgctga gagacttctc cctagagata tacgagaaac aagagcttca ccagttcatg
     1141 agcaccacaa cagcacggtc atcgaaccac tgaagaaaag aaaggaaacg gcggcgtatt
     1201 agtgatcgga aaaaaagcac gtgtgcacat gaagaagtgc acgtgttaag aagtgggcct
```

Yamada, K. (SSP/PGEC) and Seki, M. (RIKEN GSC) contributed equally to

Disclaimer | Write to the Help Desk NCBI | NLM | NIH

May 2 2003 16:47:12